ATYIDAE DE HAAN, [1849] (CRUSTACEA, DECAPODA) AND ATYIDAE THIELE, 1926 (MOLLUSCA, GASTROPODA): PROPOSALS TO REMOVE THE HOMONYMY. Z.N.(S.) 2357.

by Trevor K. Crosby (*Entomology Division, Department of Scientific and Industrial Research, Private Bag, Auckland, New Zealand*) and Alan Carpenter (*Agricultural Research Division, Ministry of Agriculture and Fisheries, Private Bag, Palmerston North, New Zealand*).

Homonymy, as defined in Article 55 of the International Code of Zoological Nomenclature, exists between the family-group names ATYIDAE De Haan, [1849] (Crustacea: Decapoda) and ATYIDAE Thiele, 1926 (Mollusca: Gastropoda). Both family-group names are correctly derived as specified in Articles 11e and 29 of the Code, the former from the generic name *Atya* Leach, 1816 (= *Atys* Leach, 1815, a junior homonym of *Atys* Montfort, 1810), and the latter from the generic name *Atys* Montfort, 1810. In the case of ATYIDAE De Haan the original family-group name was ATYADEA (corrected by Dana, 1852); and Yu, 1936 used ATTIDAE as an incorrect subsequent spelling (Holthuis, 1955). In the case of ATYIDAE Thiele, Abbott, 1954 used ATYDAE as an incorrect subsequent spelling.

2. The generic name *Atys* was first used for Mollusca by Montfort, 1810, p. 342 for the gastropod species *Atys cymbulus* Montfort, 1810, p. 343. *A. cymbulus* was subsequently synonymised with *A. naucum* (Linnaeus, 1758, p. 726) by Pilsbry, [1895], and this synonymy was maintained by Dodge, 1955 in his review of the molluscs described by Linnaeus. The family placement of the genus *Atys* has changed several times since the latter was described and is still a matter of dispute. Thiele, 1926, p. 106 erected the family ATYIDAE (with *Atys* as type genus) by removing *Atys* from SCAPHANDRIDAE Sars, 1878. Abbott, 1954, p. 278 used ATYDAE as an incorrect subsequent spelling in the index and running head of his book. Recently Abbott, 1974, included *Atys* in HAMINOEIDAE Pilsbry, [1895], in contrast to Franc, 1968, who considered four subfamilies could be recognised in ATYIDAE, two of these being HAMINEINAE (= HAMINOEINAE) Pilsbry, [1895] and ATYINAE Thiele, 1926 (HAMINOEINAE was originally described as a subfamily of AKERIDAE Pilsbry, [1895]).

3. The generic name *Atys* was first used for Crustacea by Leach, 1815, p. 345, for the shrimp *Atys scaber* Leach, 1815, p. 345; on discovering *Atys* Leach was preoccupied by *Atys* Montfort, he changed his *Atys* to *Atya* (Leach, 1816, p. 421). In 1849 De Haan placed the genus *Atya* in the newly-erected family-group category ATYADEA; this was altered by Dana, 1852, p. 13, to the current family name ATYIDAE. Yu, 1936, p. 88, used the incorrect subsequent spelling ATTIDAE for ATYIDAE De Haan. Holthuis (1955) made an application to the International Commission on Zoological Nomenclature (Z.N.(S.)622) on 102 generic names of Crustacea for

addition to the Official List of Generic Names in Zoology; one of the names for inclusion was *Atya* Leach. Holthuis also asked for *Atys* Leach to be placed on the Official Index of Rejected and Invalid Generic Names in Zoology, for *scaber* Leach to be placed on the Official List of Specific Names in Zoology, for ATYIDAE De Haan to be placed on the Official List of Family-Group Names in Zoology, and for ATYADEA De Haan and ATTIDAE Yu to be placed on the Official Index of Rejected and Invalid Family–Group Names in Zoology. The application incorporating these points was granted by the Commission (Opinion 470, Ops Decls I.C.Z.N. vol. 16, pp. 129–202, 1957).

4. The generic name *Atys* has also been used in Insecta for a genus of the order Coleoptera, family SCARABAEIDAE. Reiche 1849, p. 352, described *Atys* with the single species *A. samenensis* Reiche in Ferret & Galinier, 1849, p. 352. Strand, 1942 p. 391, pointed out that *Atys* Reiche in Ferret & Galinier was preoccupied, and proposed the replacement name *Atysilla* Strand. No family-group name has been derived from *Atys* Reiche.

5. Pursuant to Article 55 of the Code, we refer this case to the International Commission on Zoological Nomenclature. Although there are no formal grounds for preferring conservation of one family-group name over the other, in view of the following facts we request that the crustacean name be conserved:

(a) The crustacean family name antedates that of the molluscan.

(b) The crustacean family name has been placed on the Official List of Family-Group Names in Zoology as number 151 (I.C.Z.N., 1957, Opinion 470).

(c) In the indexes of volumes 24–68 of *Biological Abstracts* (1950–1979) the crustacean taxon is referred to 54 times (as the family ATYIDAE 38 times, as atyid shrimp or prawn 10 times, and as the genus *Atya* 6 times), whereas the molluscan taxon is referred to only 3 times (as the generic name *Atys*). However, it should be noted that the family name ATYIDAE and the generic name *Atys* have been used in books on Mollusca published within this period although not indexed under these names in *Biological Abstracts*, e.g., Abbott, 1954; Tinker, 1958; Keen, 1960; Franc, 1968; Cernohorsky, 1972; Keen & Coan, 1974 and Powell, 1979.

(d) For medical entomology reasons, as in Africa two species of atyid shrimps (*Atya africana* Bouvier, 1904, and an unidentified species) have been found to have two species of SIMULIIDAE (Insecta: Diptera; *Simulium* (*Phoretomyia*) *dukei* Lewis, Disney & Crosskey, 1969, and *S.* (*Lewisellum*) *atyophilum* Lewis & Disney, 1969) associated with them (Disney, 1971). *S. (P.) dukei* has been reported biting man, and is possibly a rare vector of *Onchocerca volvulus* (Leuckart, 1893) (Nematoda: ONCHOCERCIDAE) which causes onchocerciasis (Duke, 1962; Lewis, Disney & Crosskey, 1969; Crosskey, 1973).

6. If the generic name *Atys* itself is ruled to be the stem, then there is a possibility that difficulties may arise if the generic name *Atysa* Baly, 1864 (Insecta: Coleoptera: CHRYSOMELIDAE) is used to form a family-group name with the stem *Atys*-.

7. The solution we suggest is for the Commission to alter the stem of the molluscan type genus in a way similar to that proposed for *Tethys* Linnaeus, 1767 (Melville, 1978). *Atys* is a classical Greek noun of a sort that would be expected to give the genitive atydis, although its proper genitive in Greek is atyos. Therefore, we ask the Commission to rule under its plenary powers that the stem of *Atys* for the purposes of Article 29 is ATYD-, giving the family name ATYDIDAE.

8. We therefore request that the Commission:

(1) use its plenary powers to rule that the stem of the generic name *Atys* Montfort, 1810 (Mollusca) for the purposes of Article 29 is ATYD-;

(2) place the generic name *Atys* Montfort, 1810 (Mollusca) (gender: masculine), type species by original designation *Atys cymbulus* Montfort, 1810 on the Official List of Generic Names in Zoology;

(3) place the specific name *naucum* Linnaeus, 1758, as published in the binomen *Bulla naucum* (the valid name at the time of this application for the specific name of the type species of *Atys* Montfort, 1810) on the Official List of Specific Names in Zoology;

(4) place the family-group name ATYDIDAE Thiele, 1926 (emended through the ruling given under the plenary powers in (1) above, of ATYIDAE) (type genus *Atys* Montfort, 1810 (Mollusca)) on the Official List of Family-Group Names in Zoology;

(5) place the following family-group names on the Official Index of Rejected and Invalid Family-Group Names in Zoology:

(a) ATYIDAE Thiele, 1926 (an incorrect original spelling of ATYDIDAE Thiele, 1926 in consequence of the ruling given under the plenary powers in (1) above) (Mollusca);

(b) ATYDAE Abbott, 1954 (an erroneous subsequent spelling for ATYDIDAE Thiele, 1926 (Mollusca).

ACKNOWLEDGEMENTS

We thank Dr G. Kuschel (*Entomology Division, DSIR, Auckland, New Zealand*) for his advice regarding the classical Greek name Atys, and Dr W. O. Cernohorsky (*Auckland Institute and Museum, Auckland, New Zealand*) for providing information on the molluscan family.

REFERENCES

ABBOTT, R. T. 1954. *American Seashells.* Van Nostrand Co. Inc., Princeton, 541 pp.

———1974. *American Seashells.* 2nd ed. Van Nostrand Reinhold Co., New York, 663 pp.

BALY, J. S. 1864. Descriptions of uncharacterized genera and species of *Phytophaga. Trans. roy. entomol. Soc. London,* ser. 3, vol. 2, pp. 223–241.

BOUVIER, E. L. 1904. Crevettes de la famille des Atyidés; espèces qui font partie des collections du Muséum d'Histoire naturelle. *Bull. Mus. Hist. nat. Paris,* vol. 10, pp. 129–138.

CERNOHORSKY, W. O. 1972. *Marine Shells of the Pacific,* vol. 2. Pacific Publications, Sydney, 411 pp.

CROSSKEY, R. W. 1973. Simuliidae (Black-flies, German: Kriebelmücken). In SMITH, K. G. V., ed., *Insects and other Arthropods of Medical Importance,* British Museum (Natural History), London, pp. 109–153.

DANA, J. D. 1852. Conspectus Crustaceorum, &c. Conspectus of the Crustacea of the exploring Expedition under Capt. Wilkes, U.S.N. *Proc. Acad. nat. Sci. Philadelphia,* vol. 6, pp. 6–28.

DE HAAN, W., 1849. Crustacea elaborante. in SIEBOLD, P. F. VON, *Fauna Japonica,* vol. 6, xxi + 230, pp. 184–186.

DISNEY, R. H. L. 1971. Association between blackflies (Simuliidae) and prawns (Atyidae), with a discussion of the phoretic habit in simuliids. *J. anim. Ecol.* vol. 40, pp. 83–92.

DODGE, H. 1955. A historical review of the Mollusks of Linnaeus. Part 3. The genera *Bulla* and *Voluta* of the class Gastropoda. *Bulla. amer. Mus. nat. Hist.* vol. 107, pp. 1–158.

DUKE, B. O. L. 1962. *Simulium aureosimile* Pomeroy, a possible vector of *Onchocerca volvulus. Ann. trop. Med. Parsitol.* vol. 56, pp. 67–69.

FRANC, A. 1968. Sous-classe des Opisthobranches. In GRASSÉ, P.-P., *Traité de Zoologie,* vol. 5, fasc. 3, pp. 608–893, Masson et Cie, Paris.

HOLTHUIS, L. B. 1955. Proposed addition to the "Official List of Generic Names in Zoology" of the names of one hundred and two genera of Caridea (Class Crustacea, Order Decapoda), including proposals for the use of the plenary powers (a) to validate the emendation to "Gnathophyllum" of the generic name "Gnatophyllum" Latreille, 1814, and (b) to validate the family-group names "Hippolytidae" Bate, 1888 and "Eugonatonotidae" Chace, 1937. *Bull. zool. Nomencl.* vol. 11, pp. 204–228.

I.C.Z.N., 1957. Opinion 470. Addition to the Official List of Generic Names in Zoology of the names of 102 genera of Caridea (Class Crustacea, Order Decapoda), & use of the plenary powers for various purposes in connection therewith. *Ops Decs int. Comm. Zool. Nomencl.* vol. 16, part 9, pp. 129–202.

KEEN, A. M. 1960. *Sea Shells of Tropical West America. Marine mollusks from Lower California to Colombia.* Stanford University Press, Stanford, 208 pp.

———& COAN, E. 1974. *Marine Molluscan Genera of Western North America. An Illustrated Key.* 2nd ed. Stanford University Press, Stanford, 624 pp.

LEACH, W. E. 1815. A tabular view of the external characters of four classes of animals, which Linné arranged under Insecta; with the distribution of the genera composing three of these classes into orders, &c. and descriptions of several new genera and species. *Trans. linn. Soc. London,* vol. 11, pp. 306–400.

——1816. In, *Supplement to the fourth, fifth and sixth editions, Encyclopaedia Britannica,* vol. 1, p. 421.

LEUCKART, K. G. F. R. 1893. *Die Parasiten des Menschen und die von ihnen herrührendenden Krankheiten.* 2nd ed. Vol. 1, part 1, viii+441–736 pp. Leipzig.

LEWIS, D. J. & DISNEY, R. H. L. 1969. A new phoretic *Simulium* from West Cameroon (Diptera: Simuliidae). *Proc. roy. entomol. Soc. London* (B), vol. 38, pp. 117–120.

——, —— & CROSSKEY, R. W. 1969. A new phoretic species of *Simulium* (Dipt., Simuliidae) from West Cameroon, with taxonomic notes on allied forms. *Bull. entomol. Res.* vol. 59, pp. 229–239.

LINNAEUS, C. 1758. *Systema Naturae.* 10th ed., vol. 1. Laurentii Salvii, Holmiae, 824 pp.

——1767, *Systema Naturae.* 12th ed., vol. 1. Laurentii Salvii, Holmiae, 1364 pp.

MELVILLE, R. V. 1978. Tethyidae in gastropods, sponges and ascidians: proposals to remove the homonymy. Z.N.(S.) 1780. *Bull. zool. Nomencl.* vol. 34, pp. 247–251. (See also Opinion 1182, *Bull. zool. Nomencl.* vol. 38, pp. 174–177).

MONTFORT, D. DE, 1810. *Conchyliologie systématique, et classification méthodique des coquilles. Coquilles Univalves, non cloisonnées,* vol. 2, pp. 342–344, Paris.

PILSBURY, H. A. [1895]. *Tryon's Manual of Conchology; structural and systematic.* Vol. 15, Academy of Natural Sciences, Philadelphia, 436 pp. + 61 pl.

POWELL, A. W. B. 1979. *New Zealand Mollusca. Marine, Land and Freshwater Shells.* Collins, Auckland, 500 pp.

REICHE, L. 1849. Entomologie. In FERRET, A. & GALINIER, *Voyage en Abyssinie, dans les provinces du Tigré, du Samen et de l'Amhara,* vol. 3, pp. 259–471, Paulin, Paris (dated 1847).

SARS, G. O. 1878. *Bidrag til kundskaben om Norges Arktiske Fauna. I. Mollusca regionis Arcticae Norvegiae.* Christiania, 466 pp.

STRAND, E. 1942. Miscellanea nomenclatorica zoologica et paleontologica. X. *Folia zool. hydrobiol.* vol. 11, pp. 386–402.

THIELE, J. 1926. In KÜKENTHAL, W. & KRUMBACH, T., Solenogastres: Mollusca: Echinoderma. *Handb. Zool. Berlin,* vol. 5, pp. 97–176, 177–256.

TINKER, S. W. 1958. *Pacific sea shells. A handbook of common marine molluscs of Hawaii and the South Seas.* 2nd ed. C. E. Tuttle Co., Rutland, 240 pp.

YU, S. C., 1936. Report on the macrourous Crustacea collected during the Hainan biological expedition in 1934. *Chinese J. Zool.* vol. 2, pp. 85–100.